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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/774,695
Filing Date: February 10, 2004
Appellant(s): LEHTONEN, TUOMO

David E. Brown
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 12, 2006 appealing from the Office action mailed October 5, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,000,287	MENZEL	12-1999
5,831,164,	REDDI et al.	11-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

(A) . Claims 1, 3-11 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,000,287 (Menzel).

Menzel discloses an angular motion accelerometer comprising, as illustrated in Figures 1-7, at least one pair of electrodes comprises a movable electrode 24 and at least one stationary plate portion 34 wherein the movable electrode is free to rotate in a rotational motion along an axis of rotation such that a capacitance change between the movable electrode and the plate portion is enhanced by the shape of the electrodes or the gap between the electrodes. Furthermore, the pair of electrodes are shaped by a significant portion of the area of either the movable electrode or the stationary plate portion or both electrodes; the movable electrode is supported at two support points by torsion springs 30 for bending and rotating; a second stationary electrode 40. (See, column 3, line 14 to column 5, line 53).

(B) Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,000,287 (Menzel) in view of U.S. Patent 5,831,164 (Reddi et al.).

With regards to claims 12-14, Menzel does not disclose the pair of electrodes is shaped in a triangle or a drop or a hammer; but does teach the pair of electrodes can be shaped in a trident shape or a rectangular shape. (See, column 1, line 66 to column 2, line 4). Reddi et al. suggests the pair of electrodes maybe of any shape. (See, column 6, lines 30-31). It would have been obvious to a person of ordinary skill in the art at the time of invention to have readily recognize the advantages and desirability of constructing the pair of electrodes to be any shape as suggested by Reddi et al. to the apparatus of Menzel to provide a plurality of accelerometers with different dimensions for the electrodes such that each accelerometer has a different sensitivity to acceleration without significant changes in the basic construction of the accelerometers, namely having a moving electrode and a stationary electrode. Furthermore, it is well known one can design an element to a different form or shape without departing from the scope of the invention. (NOTE: In re Dailey, 149, USPQ 47 (CCPA 1976)).

(10) Response to Argument

(A) The appellant argues that the reference, Menzel, fails to disclose or suggest the capacitance change between the movable electrode in rotational motion and the plate portion is enhanced by means of the shape of the electrodes, as presently claimed in claim 1.

The Examiner disagrees with the appellant. The reference, Menzel, does teach the capacitance change between the movable electrode in rotational motion and the plate portion is enhanced by means of the shape of the electrodes. In column 1, line 52 to column 2, line 4 of Menzel, the reference suggests the desired sensitivity (i.e. enhancement) for the capacitance sensor is by changing the plate portion (i.e. stationary electrode) center of area relative to the movable electrode. As such, the enhancement of the capacitance change between the movable electrode and the plate portion (i.e. stationary electrode) is enhanced by changing the surface area shape (i.e. length) of the plate portion (i.e. stationary electrode). The changing of the length of the rectangular-shaped plate portion (i.e. stationary electrode) is considered changing the shape of the plate portion (i.e. stationary electrode) since the surface area of the initial rectangular shaped plate portion (from L1 to L2) is transformed into another rectangular shaped plate portion (from L1 to L2') when the length is changed.

Furthermore, as observed in Figures 5-6 and described in column 5, lines 26-53 of Menzel, the surface area shape (i.e. length) of the stationary electrode is altered to obtain the desired sensitivity for the acceleration sensor. The graph as shown in Figure 7 of Menzel, illustrates how the changing of the surface area shape (i.e. length) of the plate portion (i.e. stationary electrode) enhances the sensitivity of the capacitance change of the sensor.

At the same time, the word "shape" is not clearly defined as what is being meant. Hence, the Examiner is taking the broadest interpretation for the word "shape". Therefore, by changing the surface area shape (i.e. the length of the stationary

electrode), the capacitance change between the movable electrode and the stationary electrode is enhanced by the shape of the electrode.

With respect to claims 3-11 and 15-17, it should be noted that the appellant has not provided separate arguments traversing the final rejection of any of claims 3-11 and 15-17. Therefore, these claims are assumed to stand or fall with the rejection of claim 1.

(B) The appellant argues that the reference, Menzel, neither discloses nor suggests the additional features as recited in, presently claimed, claims 3-11 and 15-17.

The Examiner disagrees with the appellant. These additional features are taught by Menzel as indicated in the above art rejection. Furthermore, the appellant has not provided separate arguments traversing the final rejection of any of claims 3-11 and 15-17. Hence, these claims are assumed to stand or fall with the rejection of claim 1.

(C) The appellant argues that that the reference, Menzel, fails to disclose or suggest the pair of electrodes is shaped as a triangle, a drop or a hammer, as presently claimed in claims 12-14.

The Examiner disagrees with the appellant. The reference, Menzel, does suggest the pair of electrodes can be of a hammer shape. As illustrated in Figure 4 Menzel, the pair of electrodes includes a beam (i.e. handle of the hammer) and a mass (i.e. the head of the hammer). This configuration is similar to Figure 17 of the instant application where the figure illustrates a hammer shape. Moreover, the reference

issued to Reddi et al. suggest any shape can be used for the pair of electrodes, as described in column 5, lines 34-54 and column 6, lines 21-31. Additionally, it is well known one can design an element to a different form or shape without departing from the scope of the invention. (NOTE: In re Dailey, 149, USPQ 47 (CCPA 1976)).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Helen Kwok
March 1, 2007

Conferees:

Hezron Williams

David Blum